Claims

What is claimed is:

1. A method for transparent coupling between compatible containers communicating over networks, the method performed by a first container and comprising the steps of:

determining, by using one or more messages defined by the open-standard protocol and communicated over one or more networks coupled to a second container, whether the second container can communicate using messages having a portion not defined by an open-standard protocol and having a portion defined by the open-standard protocol; and

communicating, with the second container, at least one additional message having the portion not defined by the open-standard protocol and having the portion defined by the open-standard protocol, wherein the portion not defined by the open-standard protocol occupies a predetermined part of the at least one additional message that would be defined by the open-standard protocol if the open-standard protocol were used for the predetermined part.

2. The method of claim 1, wherein the step of determining further comprises the step of including identification information in at least one of the one or more messages defined by the open-standard protocol, the step of including performed in accordance with the open-standard protocol.

3. The method of claim 2, wherein the identification information identifies the first container.

4. The method of claim 3, wherein the identification information identifies the first container by including a container name and a version.

5. The method of claim 2, wherein the step of determining further comprises the steps of:

receiving at least one of the one or more messages defined by the open-standard protocol;

searching for return identification information in the received at least one message; and

authenticating any return identification information.

6. The method of claim 5., wherein the step of determining further comprises the step of sending, if the return identification information is authenticated, a given one of the one or more messages defined by the open-standard protocol to the second container, the given message including a final acknowledgment added to the given message in accordance with the open-standard protocol.

7. The method of claim 1, wherein the step of communicating further comprises the steps of:

creating a given one of the at least one additional messages;

placing information not defined by the open-standard protocol in the predetermined part of the given additional message.

8. The method of claim 7, wherein the information comprises one or more of the following: executable statements, binary data, records, and database tables.

9. The method of claim 1, wherein the open-standard protocol is a version of simple object access protocol (SOAP), and wherein the portion of the at least one additional message not defined by the open-standard protocol occupies a payload of a SOAP envelope.

10. The method of claim 1, wherein the portion not defined by the open-standard protocol comprises information including one or more of the following: executable statements, binary information, proprietary information, and database elements.

11. The method of claim 10, wherein the method further comprises the step of compressing the information, the step of compressing performed prior to the step of communicating.

12. The method of claim 1, wherein the step of communicating further comprises the step of transmitting, to the second container, at least one additional message having the portion not defined by the open-standard protocol and having the portion defined by the open-standard protocol.

13. The method of claim 1, wherein the step of communicating further comprises the step of receiving, from the second container, at least one additional message having the portion not defined by the open-standard protocol and having the portion defined by the open-standard protocol.

14. The method of claim 1, wherein:

the step of communicating at least one additional message further comprises the step of receiving at least one additional message having the portion not defined by the open-standard protocol and having the portion defined by the open-standard protocol;

the portion not defined by the open-standard protocol comprises executable statements; and

the method further comprises the step of executing the executable statements.

15. The method of claim 14, wherein the method further comprises the step of decompressing the executable statements, the step of decompressing performed prior to the step of executing.

16. The method of claim 1, wherein the first container is executed by a first computer and wherein the second container is executed by a second computer.

17. The method of claim 1, wherein the steps of determining and communicating are performed by a proxy that is integral with first container.

18. An apparatus for transparent coupling between compatible containers communicating over networks, the apparatus comprising:

one or more memories comprising a first container; and

one or more processors coupled to the one or more memories, the one or more processors configured, when executing at least a portion of the first container:

to determine, by using one or more messages defined by an open-standard protocol and communicated over one or more networks coupled to a second container, whether the second container can communicate using messages having a portion not defined by an open-standard protocol and having a portion defined by the open-standard protocol; and

to communicate, with the second container, at least one additional message having the portion not defined by the open-standard protocol and having the portion defined by the open-standard protocol, wherein the portion not defined by the open-standard protocol occupies a predetermined part of the at least one additional message that would be defined by the open-standard protocol if the open-standard protocol were used for the predetermined part.

19. The apparatus of claim 18, wherein the one or more processors are further configured, when determining whether the second container can communicate to include

identification information in at least one of the one or more messages defined by the open-standard protocol, the including performed in accordance with the open-standard protocol.

20. The apparatus of claim 18, wherein the one or more processors are further configured, when communicating at least one additional message:

to create a given one of the at least one additional messages;

to place information not defined by the open-standard protocol in the predetermined part of the given additional message.

21. The apparatus of claim 20, wherein the information comprises one or more of the following: executable statements, binary data, records, and database tables.

22. The apparatus of claim 18, wherein the open-standard protocol is a version of simple object access protocol (SOAP), and wherein the portion of the at least one additional message not defined by the open-standard protocol occupies a payload of a SOAP envelope.

23. The apparatus of claim 18, wherein the portion not defined by the open-standard protocol comprises information including one or more of the following: executable statements, binary information, proprietary information, and database elements.

24. The apparatus of claim 23, wherein the one or more processors are further configured to compress the information, the compression performed prior to the communicating of the at least one additional message.

25. An article of manufacture for transparent coupling between compatible containers communicating over networks, the article of manufacture comprising:

a computer readable medium containing one or more programs which when executed on a first container implement the steps of:

determining, by using one or more messages defined by an open-standard protocol and communicated over one or more networks coupled to a second container, whether the second container can communicate using messages having a portion not defined by an open-standard protocol and having a portion defined by the open-standard protocol; and

communicating, with the second container, at least one additional message having the portion not defined by the open-standard protocol and having the portion defined by the open-standard protocol, wherein the portion not defined by the open-standard protocol occupies a predetermined part of the at least one additional message that would be defined by the open-standard protocol if the open-standard protocol were used for the predetermined part.